WE CLAIM:

1. A computer-based automated method for tracking the movement of masks used in a wafer processing facility, the masks being moved in mask pods, the method comprising:

for each mask, generating mask data that includes a mask identification code; and

using a computer to process the mask data, including cross-referencing respective mask identification codes to pod identification codes, and updating the mask data to include a facility location identification code.

2. The method of claim 1, wherein said updating occurs as each mask moves to a subsequent location during wafer processing and said updating includes adding a tool identification code to the mask data set when the mask arrives to a tool location.

3. The method of claim 2, after said updating, further including: creating a historical database for the mask data corresponding to each mask and tracking the movement of each mask when the mask arrives to a new location.

4. The method of claim 1, after the updating step, further including the step of providing a material control system that sends a selected mask to a new location, thereby triggering an update of the mask data set for the selected mask when the mask arrives to the new location.

5. The method of claim 1, further including: storing mask data.

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6. The method of claim 5, wherein storing mask data includes: using the computer arrangement to track the condition of each mask, the mask condition including particle contamination, mask degradation, number of exposures, number of times mask is handled and mask structural defects /wherein the masks are selected from the group consisting of reticles, wafer processing masks and solder bump masks.

7. The method of claim 6, wherein the masks are selected from the group consisting of: reticles, wafer processing masks and solder bump masks.

8. The method of claim 6, wherein said storing mask data includes: using the computer arrangement to match a reticle serial number and a wafer lot to an event on a processing line and storing match data as part of the mask data set.

9. The method of claim 1, further including matching the mask to a carrier, the carrier having a carrier identification code, and storing the carrier code data as part of the mask data.

10. The method of claim 1, further including tracking the mask movement from a material stocker, through a stepper and through an inspection tool while in the pod.

11. A system for tracking the movement of masks used in a wafer processing facility, the masks being moved in mask pods, the system comprising:

for each mask, means for generating mask data that includes a mask identification code; and

computer means for processing the mask data, including cross-referencing respective mask identification codes to pod identification codes, and updating the mask data to include a facility location identification code.

12. The system of claim 11, further including a material handling system adapted to move the masks and mask pods to multiple locations in the wafer processing facility.

13. The system of claim 10, wherein the mask data set further includes a tool identification code, generated when the mask arrives to a new tool location, that is stored in the computer arrangement.

14. A computer-based automated method for tracking the movement of masks used in a wafer processing facility, the masks being moved in mask pods, the method comprising:

for each mask, generating mask data that includes a mask identification code;

using a computer to process the mask data, including cross-referencing respective mask identification codes to pod identification codes, and updating the mask data to include a facility location identification code;

conducting a degradation analysis on each mask that includes a comparison of the mask data to a mask baseline specification so as to generate degradation data for each mask; and

analyzing and tracking the mask degradation data to determine the useful life of each mask.

15. The method of claim 14, further including: tracking an event associated with a select wafer lot, the event tracking including matching the mask identification code with the select wafer lot.